

Remarks/Arguments

Preliminary Matters

Claims 1 - 20 are pending in the present case.

With respect to matters of formality in the present case, the abstract stands objected to as including the legal phraseology "comprises." The abstract has been amended to replace the term "comprises" with the term "includes." Claims 4, 7, 10, and 17 stand objected to due to various informalities. These claims have been amended to clarify the informalities. Applicants contend that no new matter has been added. Reconsideration of these claims is respectfully requested.

35 U.S.C. § 112

Claims 6, 8, 9, 12, and 17 - 20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 6, 8, 9, 12, and 17 - 20 have been amended to clarify the claim language. Applicants contend that no new matter has been added. Reconsideration of these claims is respectfully requested.

35 U.S.C. § 102

Claims 1 - 3 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,901,908 to Goenka et al. Applicants respectfully submit that the claims are patentable over Goenka for the reasons set forth below.

Independent claim 1 recites an element that is neither disclosed nor suggested by Goenka, namely a liquid inlet in fluid communication with *the throat of the mixing slot* so that *liquid entering the mixing slot through the liquid inlet is atomized and combined with the gas stream*.

By way of example, as shown in the embodiment depicted in Applicants' Fig. 12, mixing slot 62 of base member 16D has a gas input side 82 and a mixture side 88. In an exemplary embodiment, mixing slot 62 is generally hourglass shaped. Gas input side 82 and mixture side 88 are each substantially triangular in shape and are in fluid communication through a throat joining their respective apices. *A mixing point 66 is located at the throat of the hourglass shape.* A liquid inlet 80 is in fluidic communication with mixing point 66 of mixing slot 62. *Mixing point 66 is defined by the junction of liquid inlet 80 and mixing slot 62.* These features are found in the originally filed application at page 15, lines 15 - 26.

Goenka does not disclose a mixing point at a throat, and instead discloses an input into recirculation section 20, which is below the arguable throat of Goenka. As described in Goenka the recirculation cavity is for mixing liquid with gas. More specifically, the paint composition is turbulently mixed by the action of the pressurized gaseous propellant flowing at supersonic speeds within the recirculation cavity. Column 1, lines 49 - 53. The recirculation section 20 has first and second lobes 24 and 26 in which the paint composition 14 is mixed with the gaseous propellant 12 in a recirculatory path shown by flow arrows 28 of Fig. 1. Column 2, lines 57 - 60. Thus, Goenka does not teach a liquid inlet in fluid communication with *a throat of a mixing slot* so that *liquid entering the mixing slot through a liquid inlet is atomized and combined with a gas stream*, as recited in Applicants' claim 1, and therefore fails to teach or suggest each and every limitation of Applicants' claimed invention.

Accordingly, for the foregoing reasons, Applicants request reconsideration of claim 1, and respectfully submit that independent claim 1 is patentable over Goenka and should be allowed. Claims 2 and 3 are dependent upon claim 1, and therefore should also be allowed as depending upon an allowable base claim.

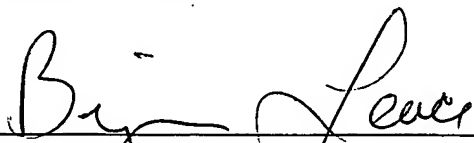
Double Patenting

Claims 4 - 20 stand rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1 - 10 of U.S. Patent No. 6,604,492 to Porter et al. To obviate this rejection, enclosed herewith is a timely filed Terminal Disclaimer in compliance with 37 CFR 1.321(c).

Conclusion

In view of the amendments and remarks set forth above, Applicants contend that the above-identified application is in condition for allowance, early notification of which is respectfully requested.

Respectfully submitted,


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EEF/dhm

Appln. No.: 10/086,403
Amendment Dated April 2, 2004
Reply to Office Action of December 8, 2003

POR-105US

Attachments: Abstract
Terminal Disclaimer

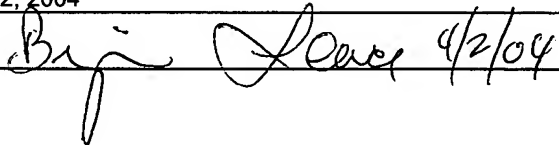
Dated: April 2, 2004

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 4/2/04

Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

An atomizer is provided for combining a precise mass of atomized liquid into a gas stream. The atomizer includes a mixing slot formed in a face of a base member. The mixing slot ~~comprises~~includes a throat in fluid communication with a gas inlet side having a smoothly decreasing cross-sectional area and a mixture outlet side having a smoothly increasing cross-sectional area. A gas stream enters the mixing slot via the gas inlet side and a liquid enters the mixing slot via a liquid inlet in fluid communication with the throat of the mixing slot. The mixing slot is sealed by a sealing member abutting the face of the base member with the mixing slot in it. The liquid is atomized and combined with a gas stream by venturi effect.

Attachment